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A STUDY OF THE EDUCATIONAL VALUE OF MILITARY INSTRUCTION IN UNIVERSITIES AND COLLEGES

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RALPH CHESNEY BISHOP

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U. S. DEPARTMENT OF THE INTERIOR, RAY LYMAN WILBUR, *Secretary*
OFFICE OF EDUCATION . . . . . WILLIAM JOHN COOPER, *Commissioner*

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LETTER OF TRANSMITTAL

DEPARTMENT OF THE INTERIOR,
OFFICE OF EDUCATION,
Washington, D. C., January, 1932.

SIR: About a year ago Major Bishop informed me that his association, the Research Organization on Military Education, had received some money which could be used for the purpose of studying the status of military training in the colleges. In view of the fact that it was a much discussed question in the schools at the time, I decided to assist him by sending out a questionnaire to R. O. T. C. graduates. About 16,000 questionnaires were mailed; more than 10,000 returns were received. All the people who received these blanks were graduates in the period extending from 1920 to 1930. Coming from those who have had experience with the course the returns speak for themselves.

Respectfully submitted.

WM. JOHN COOPER,
Commissioner.

The SECRETARY OF THE INTERIOR.

A STUDY OF THE EDUCATIONAL VALUE OF MILITARY INSTRUCTION IN COLLEGES AND UNIVERSITIES

INTRODUCTION

The educational value of military training has been a matter of debate since the earliest appearance of such training in the college curriculum over a century ago.

Since the World War, the debate has become somewhat more pointed. Criticism has expressed itself in organized opposition to certain aspects of such training, especially to military education as a required part of a college education. Thus far there have been relatively little reliable data bearing upon the question, and therefore the discussion has been characterized by bias on both sides.

It is possible that at some later time objective tests of the value of various types of military training may be available, and can be satisfactorily applied as a better basis for determining the value of this subject as a component in the training of a well-educated man.

In the absence of such objective tests, the most helpful data on which to premise reasonably sound conclusions would appear to be a wide sampling of the opinions of those who have actually undergone such training and have had the opportunity to evaluate it in terms of what they regard as its effect upon their own lives. That such evaluations may be faulty in individual cases is recognized. However, considerable preponderance of opinion pro or con as to the effect of a common experience may reasonably be given weight in an inquiry to determine the character of the reaction resulting from such an experience, whether it be military training or of any other sort.

It seems also that the opinions of those who have actually undergone a given experience may be assumed to be of more positive value as a basis for conclusions than opinions expressed by those who have not themselves undergone the experience, reactions to which are being studied. On the foregoing premises this study has been undertaken.

The curriculum of the Reserve Officers' Training Corps of the senior division consists of a 4-year course, divided into basic and advanced courses, each of two years' duration. The work of the basic course consumes 96 hours per academic year, or 3 hours per week, of which 60 hours are devoted to practical exercises out of doors when the weather

permits, while 36 hours are used for theoretical instruction in the classroom. The primary purpose is to teach the fundamentals of military tactics, and, through disciplinary training, to develop organization and teamwork. The basis upon which the course is offered is entirely a matter for institutional decision. At present the course is required of freshmen and sophomores at 80 of the 126 institutions maintaining senior units of the Reserve Officers' Training Corps.

The advanced course is entirely optional and operates on a schedule of five hours per week for both junior and senior years. In addition, the trainees must pledge themselves to attend one 6-week training camp during the summer following completion of their junior year. The aim of the advanced course is to give specialized instruction in that branch of service chosen by the candidate for commission, and to afford practical training in leadership and command. The course is more technical in nature than the basic work, which consists largely of tactical training.

The following study reports the results of a questionnaire sent only to graduates who completed the basic and the advanced R. O. T. C. courses.[1] In view of their experience with the entire R. O. T. C. curriculum they should be well qualified to evaluate educationally the course as a whole. However, it is realized that those graduates who took only the basic course, either voluntarily or as a requirement, may have an entirely different estimate of the value of military training, and of the wisdom of including it as a curriculum requirement. It is not expected that conclusions can be drawn covering so controversial a question as optional versus required training without a special study of the views of this group. It is hoped that this study may be followed by an inquiry to college graduates who took the basic course, voluntarily or as a requirement, but who did not elect the advanced training.

METHODS AND PROCEDURE OF THIS STUDY

A questionnaire containing 8 principal questions was sent out to 16,416 graduates of the 1920 to 1930 classes, inclusive, of the 54 institutions selected, accompanied by a letter from the Commissioner of Education, urging compliance. The names and addresses were gathered from college catalogues, alumni association offices, and the Adjutant General's files. The extent of the inquiry among graduates of a specific institution was largely based on the size of the institution and the number of R. O. T. C. units maintained. The exception to this was the smaller college, whose entire graduate list was usually covered. Where graduate lists appeared exceptionally large certain classes were arbitrarily left out of consideration. For instance, the

[1] The returns from the University of Washington are an exception.

1923, 1925, and 1930 classes of the Massachusetts Institute of Technology are not represented in the replies, and neither are the 1929 and 1930 classes of Drexel Institute, nor the 1923 or 1924 classes of the Virginia Military Institute. Considerable variation in the number of inquiries made was also caused by the difficulty of obtaining either names or accurate addresses. In every case, care was exercised to assure that the lists used were a random sampling of the whole number.

Every care was taken in formulating the questionnaire to avoid suggesting or influencing the answers. Sufficient space was allowed on the questionnaire for the amplification of remarks on any phase of military education, and such space was used by the large majority of graduates. It was realized that possibly there would be those unable to give direct "yes" or "no" answers to one or more questions, and the tabulations did show that such modifications occurred; but that question which elicited the greatest tendency to make such modifications was, "In your opinion does the R. O. T. C. course of instruction tend to produce a militaristic attitude inimical to world peace?" Where answers were qualified they were not counted in the tabulation. Where replies under the last question were not marked in the space provided, but expounded directly below in the space designated "Remarks" the manifest intent was the guide as to their classification.

A wide geographical sampling of institutions was made, 39 States and the District of Columbia were represented. The selections were made with the assistance of the Office of Education for the purpose of covering at least one institution in each State and obtaining a representative sampling of each type of R. O. T. C. institution. All types of senior Reserve Officer Training Corps units were included except the institution organized essentially as a military school.[2] The R. O. T. C. men reached are those who have received their training under varying educational conditions and who have entered various callings. While extension of the investigation back to a period earlier than 1920 would have been desirable, such a plan would have called for separate treatment. An investigation that went back that far would not have been applicable to the R. O. T. C. as it now exists. The questionnaire follows.

[2] Culver Military Academy, New Mexico Military Academy, and Oklahoma Military Academy are the three institutions of this type.

United States Department of the Interior
Office of Education
Washington, D. C.

QUESTIONNAIRE ON MILITARY EDUCATION TO FORMER STUDENTS OF MILITARY SCIENCE IN COLLEGES AND UNIVERSITIES

1. In your opinion, has the R. O. T. C. military course of study a definite educational value of its own?

   Check: Yes _____
   No _____

2. Did the R. O. T. C. contribute anything important or unique to your education?

   Yes _____
   No _____

3. How did the quality of the R. O. T. C. courses, as respect to content and organization, compare with other courses given at your institution?

   Below average in quality_____
   Average in quality_____
   Above average in quality_____

4. From your own experience was the time you spent on the training justified by the results obtained?

   Yes _____
   No _____

5. In your opinion, did military training aid or make easier the development in your own life of one or more of the qualities or characteristics listed below:

	Check
Leadership	( )
Initiative	( )
Orderliness	( )
Disciplinary value	( )
Others (please indicate):	
_____	( )
_____	( )
_____	( )

6. In what way, if any, has the military education you have received been of economic value to you since graduation? (More than one item may be checked.)

	Check
In improving physical development	( )
In helping to obtain first employment	( )

   Give any other reason if you have one: _____
   _____
   _____

7. In your opinion does the R. O. T. C. course of instruction tend to produce a militaristic attitude inimical to world peace?

   Yes _____
   No _____

8. Judging by your own experience:
   (*a*) Do you favor the R. O. T. C. as a required subject for the first two years of college?

   Yes _____ No _____

(*b*) Would you make the entire course optional?

Yes _____ No _____

(*c*) Would you abolish the R. O. T. C. from collegiate institutions?

Yes _____ No _____

9. Remarks: (Please express yourself freely on any phase of collegiate military training.)

Please give calendar years in which you took collegiate military training.

19____ 19____ 19____ 19____

LIST OF INSTITUTIONS INCLUDED IN THIS STUDY

The following 54 institutions contributed to this study. They are classified according to their several types as indicated by the abbreviations given. L. G. = land-grant college or university; S. = State university; M. = municipal university; M. C. = military college, essentially; P. = privately controlled or endowed universities and colleges. The table also indicates those schools in which R. O. T. C. training is required and those in which it is elective. The number of graduates of these institutions of whom inquiry was made is given, also the number and percentage of replies received from these graduates.

List of institutions included in this study

Institution	Type	Basic R. O. T. C. training	Graduates		
			Inquiries made	Replies received	Percentage of replies received
1	2	3	4	5	6
Alabama Polytechnic Institute	L. G.	Required	460	256	55.6
University of Arizona	L. G.	do	104	76	73.0
University of California (Berkeley)	L. G.	do	317	246	77.6
Carnegie Institute of Technology	P.	Elective	157	112	71.3
University of Cincinnati	M.	do	285	178	62.4
Colorado Agricultural College	L. G.	Required	126	85	67.2
Cornell University	L. G.	do	631	395	62.5
Davidson College	P.	do	182	133	73.0
University of Delaware	L. G.	do	256	124	48.4
De Pauw University	P.	Elective	141	114	80.8
Drexel Institute	P.	Required	73	47	64.3
University of Florida	L. G.	do	224	148	66.0
Georgetown University	P.	Elective	175	108	61.7
Georgia School of Technology	S.	Required	555	323	58.1
University of Georgia	L. G.	do	265	151	56.9

List of institutions included in this study—Continued

Institution	Type	Basic R. O. T. C. training	Graduates		
			Inquiries made	Replies received	Percentage of replies received
1	2	3	4	5	6
Harvard University	P.	Elective	241	158	65.5
University of Idaho	L. G.	Required	101	66	65.3
University of Illinois	L. G.	do	1,029	572	55.5
State University of Iowa	S.	do	738	505	68.4
Johns Hopkins University	P.	Elective	223	129	57.8
Kansas State Agricultural College	L. G.	Required	281	194	69.0
University of Kentucky	L. G.	do	180	102	56.6
Lafayette College	P.	Elective	93	64	68.8
Louisiana State University	L. G.	Required	307	147	47.8
Lehigh University	P.	do	185	129	69.7
University of Maryland	L. G.	do	123	71	57.7
Massachusetts State College	L. G.	do	106	63	59.4
Massachusetts Institute of Technology	L. G.	do	788	553	70.1
University of Minnesota	L. G.	do	584	384	65.7
University of Missouri	L. G.	do	361	237	65.6
Montana State University	S.	do	39	25	64.1
University of Nebraska	L. G.	do	304	218	71.7
New Mexico College of Agriculture and Mechanic Arts.	L. G.	do	80	53	66.2
College of the City of New York	M.	Elective	58	36	62.0
University of North Carolina	S.	Required	329	206	62.6
North Dakota Agricultural College	L. G.	do	110	69	62.7
Ohio State University	L. G.	do	550	344	62.5
University of Oklahoma	S.	do	202	122	60.3
Oregon State Agricultural College	L. G.	do	438	312	71.2
Pennsylvania State College	L. G.	do	264	195	73.8
University of Pennsylvania	P.	Elective	193	125	64.7
Purdue University	L. G.	Required	400	285	71.2
Rhode Island State College	L. G.	do	102	64	62.7
Ripon College	P.	do	93	50	53.7
Rutgers University	L. G.	do	127	84	66.1
University of South Dakota	S.	do	138	93	67.3
Agricultural and Mechanical College of Texas	L. G.	do	1,012	627	61.9
University of Utah	S.	Elective	142	92	64.0
Vanderbilt University School of Medicine	P.	do	156	74	47.4
Virginia Military Institute	S., M. C.	Required	495	198	40.0
Virginia Polytechnic Institute	L. G.	do	734	427	58.1
University of Washington	S.	do	[1] 618	[2] 241	[3] 38.2
University of Wyoming	L. G.	do	68	39	57.3
Yale University	P.	Elective	473	250	52.8
Unclassified replies [4]				66	
Total			16,416	10,166	61.9

[1] 270 four-year men; 348 two-year men.
[2] 94 four-year men; 147 two-year men.
[3] 34.3 per cent 4-year men; 42.2 per cent 2-year men.
[4] Received after final tabulation.

GENERAL ANALYSIS OF THE FINDINGS

In the following section appears the analysis of questionnaire returns from the 10,166 graduates of 54 colleges and universities, who have experienced R. O. T. C. training.

Question [1]	Percentage answering "Yes"	Percentage answering "No"	Total replies to individual questions out of the 10,166 replies received
1	2	3	4
1. In your opinion, has the R. O. T. C. military course of study a definite educational value of its own?	97.1	2.9	10,136
2. Did the R. O. T. C. contribute anything important or unique to your education?	94.9	5.1	10,064
4. From your own experience was the time spent on the training justified by the results obtained?	94.9	5.1	10,051
7. In your opinion does the R. O. T. C. course of instruction tend to produce a militaristic attitude inimical to world peace?	6.4	93.6	9,636
8. Judging by your own experience:			
(*a*) Do you favor the R. O. T. C. as a required subject for the first two years of college?	81.0	19.0	9,565
(*b*) Would you make the entire course optional?	26.8	73.2	[2] 8,989
(*c*) Would you abolish the R. O. T. C. from collegiate institutions?	1.5	98.5	9,203

Question	Percentage of affirmative answers	Total replies to individual questions out of the 10,166 replies received
	5	6
3. How did the quality of the R. O. T. C. courses, in respect to content and organization, compare with other courses given at your institution?		
Below average in quality	11.7	10,099
Average in quality	68.0	
Above average in quality	20.3	
5. In your opinion, did military training aid or make easier the development in your own life of one or more of the qualities or characteristics listed below:		
Leadership	79.1	8,048
Initiative	55.6	5,659
Orderliness	66.5	6,764
Disciplinary value	81.6	8,315
Others most often mentioned in replies.		
Confidence.		
Health.		
Patriotism.		
Decision.		
6. In what way, if any, has the military education you have received been of economic value to you since graduation?		
In improving physical development	49.3	5,014
In helping to obtain first employment	12.4	1,265

[1] For purpose of clearness, questions calling for "yes" or "no" replies are grouped together.

[2] There were 576 fewer replies to question 8 (*b*) than 8 (*a*), that number evidently considering question 8 (*a*) as covering the ground.

NOTE.—Approximately 400 questionnaires were returned with no writing on the back page.

ANALYSIS OF FINDINGS BY INSTITUTIONS

The returns for each institution listed are given in the following more complete table. For clearness, the order of questions is changed in the table. Answers which involve both "yes" and "no" are listed first, followed by those which are not readily reducible to both positive and negative replies. Variations in the total of replies to each question reflect the number who failed to answer the particular question. Sixty-six replies received after final tabulation, while shown in the total do not appear under institutional classification.

Analysis of findings by institutions

Question	Alabama Polytechnic Institute		University of Arizona		University of California		Carnegie Institute of Technology		University of Cincinnati	
	Yes	No	Yes	No	Yes	No	Yes	No	Yes	No
1	2	3	4	5	6	7	8	9	10	11
1. Has R. O. T. C. definite educational value?	254	2	75	1	242	4	109	2	172	6
2. Did R. O. T. C. contribute anything important to your education?	251	2	71	3	232	13	101	9	164	13
4. Was the time spent on training justified by the results obtained?	251	3	71	3	236	7	103	5	168	9
7. Does R. O. T. C. training tend to produce a militaristic attitude?	26	206	4	64	6	229	5	101	7	163
8. (*a*) Would you require 2 years' R. O. T. C.?	225	15	61	7	203	29	45	55	139	32
(*b*) Would you make it all optional?	26	202	9	56	47	176	73	26	33	122
(*c*) Would you abolish R. O. T. C.?	2	239	0	65	7	211	0	101	5	146
	Number of responses from each institution									
3. How does R. O. T. C. course compare:										
Below average	5		5		13		32		28	
Average	168		51		152		73		131	
Above average	80		20		81		6		19	
5. Did it aid the development of:										
1. Leadership	208		63		210		94		132	
2. Initiative	152		42		161		51		78	
3. Orderliness	206		52		132		70		128	
4. Disciplinary value	226		65		196		92		149	
6. Has training been of economic value:										
1. Physical	179		45		117		58		93	
2. First employment	39		6		39		13		16	

Question	Colorado Agricultural College		Cornell University		Davidson College		University of Delaware		DePauw University	
	Yes	No	Yes	No	Yes	No	Yes	No	Yes	No
1	12	13	14	15	16	17	18	19	20	21
1. Has R. O. T. C. definite educational value?	85	0	382	12	128	5	119	5	114	0
2. Did R. O. T. C. contribute anything important to your education?	80	4	365	22	127	6	116	6	112	2
4. Was the time spent on training justified by the results obtained?	80	4	356	31	127	3	116	7	114	0
7. Does R. O. T. C. training tend to produce a militaristic attitude?	5	73	26	353	10	120	8	109	1	110
8. (*a*) Would you require 2 years R. O. T. C.?	68	14	273	106	102	23	94	21	97	14
(*b*) Would you make it all optional?	16	60	123	229	28	88	28	81	17	75
(*c*) Would you abolish R. O. T. C.?	1	73	6	361	4	119	3	111	0	100

Analysis of findings by institutions—Continued

Question	Colorado Agricultural College	Cornell University	Davidson College	University of Delaware	DePauw University
1	Number of responses from each institution				
3. How does R. O. T. C. course compare:					
Below average	6	96	8	17	3
Average	46	254	97	94	85
Above average	33	40	27	11	25
5. Did it aid the development of:					
1. Leadership	65	301	121	97	109
2. Initiative	51	173	94	55	75
3. Orderliness	57	229	96	83	87
4. Disciplinary value	69	284	110	108	98
6. Has training been of economic value:					
1. Physical	35	170	79	55	83
2. First employment	11	36	21	16	28

Question	Drexel Institute		University of Florida		Georgetown University		Georgia School of Technology		University of Georgia	
	Yes	No	Yes	No	Yes	No	Yes	No	Yes	No
1	22	23	24	25	26	27	28	29	30	31
1. Has R. O. T. C. definite educational value?	47	0	145	3	107	1	318	4	144	6
2. Did R. O. T. C. contribute anything important to your education?	47	0	140	7	103	5	304	16	142	8
4. Was the time spent on training justified by the results obtained?	45	2	143	3	101	4	301	18	138	11
7. Does R. O. T. C. training tend to produce a militaristic attitude?	3	42	11	130	1	104	22	286	23	114
8. (a) Would you require 2 years' R. O. T. C.?	37	8	130	8	70	34	284	32	122	20
(b) Would you make it all optional?	10	35	12	116	43	54	59	223	30	106
(c) Would you abolish R. O. T. C.?	0	46	1	126	1	98	1	300	2	131
	Number of responses from each institution									
3. How does R. O. T. C. course compare?										
Below average	5		20		4		60		15	
Average	38		108		83		236		108	
Above average	4		19		21		26		28	
5. Did it aid the development of—										
1. Leadership	42		128		83		257		133	
2. Initiative	26		91		63		167		109	
3. Orderliness	22		101		73		231		106	
4. Disciplinary value	33		125		88		280		127	
6. Has training been of economic value:										
1. Physical	23		92		85		209		116	
2. First employment	2		14		16		23		26	

Analysis of findings by institutions—Continued

Question	Harvard University		University of Idaho		University of Illinois		University of Iowa		Johns Hopkins University	
	Yes	No	Yes	No	Yes	No	Yes	No	Yes	No
1	32	33	34	35	36	37	38	39	40	41
1. Has R. O. T. C. definite educational value?	148	9	66	0	557	13	479	25	118	11
2. Did R. O. T. C. contribute anything important to your education?	143	14	65	1	554	15	476	27	106	20
4. Was the time spent on training justified by the results obtained?	146	11	65	0	547	20	467	36	109	19
7. Does R. O. T. C. training tend to produce a militaristic attitude?	6	148	8	52	24	526	28	460	9	113
8. (*a*) Would you require 2 years' R. O. T. C.?	33	114	57	4	486	63	404	75	46	73
(*b*) Would you make it all optional?	121	21	8	46	94	429	97	351	76	35
(*c*) Would you abolish R. O. T. C.?	4	143	1	59	3	538	4	456	9	108
	Number of responses from each institution									
3. How does R. O. T. C. course compare?										
Below average	42		4		61		52		27	
Average	97		40		394		355		81	
Above average	16		22		113		97		19	
5. Did it aid the development of—										
1. Leadership	99		61		446		343		81	
2. Initiative	70		40		363		259		56	
3. Orderliness	86		49		372		361		76	
4. Disciplinary value	109		54		490		414		93	
6. Has training been of economic value:										
1. Physical	72		41		369		279		56	
2. First employment	17		12		93		54		8	

Question	Kansas State Agricultural College		University of Kentucky		Lafayette College		Lehigh University		Louisiana State University	
	Yes	No	Yes	No	Yes	No	Yes	No	Yes	No
1	42	43	44	45	46	47	48	49	50	51
1. Has R. O. T. C. definite educational value?	188	6	101	1	63	1	127	2	146	1
2. Did R. O. T. C. contribute anything important to your education?	180	12	98	4	60	4	120	8	143	1
4. Was the time spent on training justified by the results obtained?	185	9	99	3	59	5	124	4	141	3
7. Does R. O. T. C. training tend to produce a militaristic attitude?	8	172	4	91	1	61	2	122	18	121
8. (*a*) Would you require 2 years' R. O. T. C.?	154	27	89	8	28	32	109	15	121	19
(*b*) Would you make it all optional?	32	139	12	80	33	25	18	86	30	105
(*c*) Would you abolish R. O. T. C.?	3	175	2	93	2	59	0	105	0	138
	Number of responses from each institution									
3. How does R. O. T. C. course compare?										
Below average	9		4		9		11		7	
Average	125		59		42		98		104	
Above average	60		39		13		20		34	
5. Did it aid the development of—										
1. Leadership	171		94		52		113		132	
2. Initiative	111		66		36		72		113	
3. Orderliness	121		74		35		85		113	
4. Disciplinary value	154		88		53		106		129	
6. Has training been of economic value:										
1. Physical	90		74		30		65		101	
2. First employment	26		12		9		18		24	

Analysis of findings by institutions—Continued

Question	University of Maryland		Massachusetts State College		Massachusetts Institute of Technology		University of Minnesota		University of Missouri	
	Yes	No	Yes	No	Yes	No	Yes	No	Yes	No
1	52	53	54	55	56	57	58	59	60	61
1. Has R. O. T. C. definite educational value?	71	0	62	0	522	28	365	17	232	5
2. Did R. O. T. C. contribute anything important to your education?	70	0	62	0	476	64	347	29	232	4
4. Was the time spent on training justified by the results obtained?	71	0	61	1	488	54	349	20	227	7
7. Does R. O. T. C. training tend to produce a militaristic attitude?	4	65	0	60	34	502	16	351	8	216
8. (*a*) Would you require 2 years' R. O. T. C.?	65	5	48	12	409	111	286	77	200	28
(*b*) Would you make it all optional?	7	60	17	40	149	341	99	250	34	175
(*c*) Would you abolish R. O. T. C.?	1	68	1	60	12	489	5	351	3	213
	Number of responses from each institution									
3. How does R. O. T. C. course compare:										
Below average	0		2		211		54		13	
Average	40		56		314		290		151	
Above average	30		4		21		35		73	
5. Did it aid the development of:										
1. Leadership	64		47		305		285		221	
2. Initiative	45		35		167		168		167	
3. Orderliness	56		39		289		231		162	
4. Disciplinary value	63		49		389		298		198	
6. Has training been of economic value:										
1. Physical	54		36		224		192		158	
2. First employment	18		12		31		31		33	

Question	Montana State University		University of Nebraska		New Mexico Agricultural and Mechanical College		College of the City of New York		University of North Carolina	
	Yes	No	Yes	No	Yes	No	Yes	No	Yes	No
1	62	63	64	65	66	67	68	69	70	71
1. Has R. O. T. C. definite educational value?	23	1	215	3	52	1	33	2	203	3
2. Did R. O. T. C. contribute anything important to your education?	23	1	213	4	51	2	32	3	201	5
4. Was the time spent on training justified by the results obtained?	23	2	209	7	52	1	31	5	198	6
7. Does R. O. T. C. training tend to produce a militaristic attitude?	1	22	6	197	2	48	3	31	21	171
8. (*a*) Would you require 2 years' R. O. T. C.?	21	4	186	18	47	3	18	13	174	19
(*b*) Would you make it all optional?	5	15	22	159	6	43	17	14	48	130
(*c*) Would you abolish R. O. T. C.?	0	23	1	182	0	49	1	29	2	184
	Number of responses from each institution									
3. How does R. O. T. C. course compare:										
Below average	9		14		2		4		14	
Average	14		144		43		31		142	
Above average	2		59		8		1		50	
5. Did it aid the development of:										
1. Leadership	20		204		47		30		184	
2. Initiative	13		134		34		25		130	
3. Orderliness	13		147		39		22		159	
4. Disciplinary value	18		170		42		27		177	
6. Has training been of economic value?										
1. Physical	10		117		41		19		158	
2. First employment	5		31		4		5		26	

Analysis of findings by institutions—Continued

Question	North Dakota Agricultural College		Ohio State University		University of Oklahoma		Oregon State Agricultural College		Pennsylvania State College	
	Yes	No	Yes	No	Yes	No	Yes	No	Yes	No
1	72	73	74	75	76	77	78	79	80	81
1. Has R. O. T. C. definite educational value?	68	0	333	11	121	1	302	9	192	3
2. Did R. O. T. C. contribute anything important to your education?	67	1	327	15	119	3	295	11	190	5
4. Was the time spent on training justified by the results obtained?	67	2	324	17	117	5	289	18	186	8
7. Does R. O. T. C. training tend to produce a militaristic attitude?	6	62	30	292	15	100	14	274	8	184
8. (*a*) Would you require 2 years' R. O. T. C.?	62	5	284	40	113	5	258	27	153	35
(*b*) Would you make it all optional?	7	59	51	238	13	101	55	221	47	123
(*c*) Would you abolish R. O. T. C.?	1	67	3	295	1	116	3	284	4	180
	Number of responses from each institution									
3. How does R. O. T. C. course compare?										
1. Below average	1		20		4		12		18	
2. Average	44		257		80		193		147	
3. Above average	23		67		37		106		30	
5. Did it aid the development of—										
1. Leadership	62		245		107		290		163	
2. Initiative	44		156		77		178		107	
3. Orderliness	55		237		88		182		113	
4. Disciplinary value	60		285		108		252		164	
6. Has training been of economic value:										
1. Physical	46		183		86		163		113	
2. First employment	10		38		9		40		34	

Question	University of Pennsylvania		Purdue University		Rhode Island State College		Ripon College		Rutgers University	
	Yes	No	Yes	No	Yes	No	Yes	No	Yes	No
1	82	83	84	85	86	87	88	89	90	91
1. Has R. O. T. C. definite educational value?	123	0	283	2	63	1	48	2	82	2
2. Did R. O. T. C. contribute anything important to your education?	122	3	278	6	64	0	48	2	79	5
4. Was the time spent on training justified by the results obtained?	120	4	273	8	62	2	48	2	81	2
7. Does R. O. T. C. training tend to produce a militaristic attitude?	9	113	14	266	3	60	5	41	7	74
8. (*a*) Would you require 2 years' R. O. T. C.?	70	46	252	13	58	4	41	6	63	15
(*b*) Would you make it all optional?	51	50	27	219	5	52	8	34	23	54
(*c*) Would you abolish R. O. T. C.?	0	103	1	234	1	62	1	44	1	75
	Number of responses from each institution									
3. How does R. O. T. C. course compare?										
Below average	15		15		2		2		5	
Average	73		178		28		31		66	
Above average	37		90		34		17		13	
5. Did it aid the development of:										
1. Leadership	101		257		59		44		70	
2. Initiative	66		165		41		28		45	
3. Orderliness	78		183		48		39		50	
4. Disciplinary value	107		231		57		46		63	
6. Has training been of economic value:										
1. Physical	61		176		41		40		45	
2. First employment	20		37		19		13		8	

Analysis of findings by institutions—Continued

Question	University of South Dakota		Texas Agricultural and Mechanical College		University of Utah		Vanderbilt University		Virginia Military Institute	
	Yes	No	Yes	No	Yes	No	Yes	No	Yes	No
1	92	93	94	95	96	97	98	99	100	101
1. Has R. O. T. C. definite educational value?	92	1	619	6	92	0	69	5	196	2
2. Did R. O. T. C. contribute anything important to your education?	88	4	610	13	90	2	68	6	191	6
4. Was the time spent on training justified by the results obtained?	90	2	615	9	90	2	66	8	193	4
7. Does R. O. T. C. training tend to produce a militaristic attitude?	2	84	49	537	5	86	4	60	10	179
8. (*a*) Would you require 2 years' R. O. T. C.?	80	7	547	47	25	65	36	25	146	37
(*b*) Would you make it all optional?	9	77	85	481	74	12	31	25	82	98
(*c*) Would you abolish R. O. T. C.?	0	86	2	550	0	91	1	58	4	161
	Number of responses from each institution									
3. How does R. O. T. C. course compare?										
Below average	2		18		3		14		16	
Average	50		427		66		59		104	
Above average	40		181		22		1		76	
5. Did it aid the development of—										
1. Leadership	88		517		83		40		160	
2. Initiative	62		498		65		33		140	
3. Orderliness	69		488		63		53		151	
4. Disciplinary value	81		574		74		62		183	
6. Has training been of economic value?										
1. Physical	54		458		65		44		167	
2. First employment	14		73		11		9		40	

Question	Virginia Polytechnic Institute		University of Washington		University of Washington, 2-year		University of Wyoming		Yale University	
	Yes	No	Yes	No	Yes	No	Yes	No	Yes	No
1	102	103	104	105	106	107	108	109	110	111
1. Has R. O. T. C. definite educational value?	418	7	90	4	107	37	38	1	230	17
2. Did R. O. T. C. contribute anything important to your education?	410	9	87	6	90	53	38	1	221	24
4. Was the time spent on training justified by the results obtained?	415	9	87	5	87	56	38	1	228	20
7. Does R. O. T. C. training tend to produce a militaristic attitude?	33	370	4	86	21	108	0	36	15	222
8. (*a*) Would you require 2 years' R. O. T. C.?	342	54	76	17	75	59	34	2	59	168
(*b*) Would you make it all optional?	92	289	21	65	57	67	5	31	183	32
(*c*) Would you abolish R. O. T. C.?	1	389	1	91	18	106	0	37	6	226
	Number of responses from each institution									
3. How does R. O. T. C. course compare?										
Below average	28		14		46		0		79	
Average	351		62		86		19		148	
Above average	44		18		7		20		22	
5. Did it aid the development of—										
1. Leadership	347		82		51		37		152	
2. Initiative	241		57		24		25		85	
3. Orderliness	357		55		73		30		111	
4. Disciplinary value	363		76		95		32		177	
6. Has training been of economic value?										
1. Physical	287		53		45		18		97	
2. First employment	72		19		4		5		6	

DETAILED ANALYSIS OF OPINIONS

In addition to the replies summarized in the foregoing table, it has been found desirable to include a more complete discussion of each question based upon a large number of expressions of opinion that could not be tabulated in the simple form of "yes" or "no." These opinions have been carefully analyzed with the purpose of giving a more complete interpretation of the attitudes of the graduates.

1. *In your opinion, has the R. O. T. C. military course of study a definite educational value of its own?*—According to the data received, 97.1 per cent of those who replied to this question are agreed that military training has a definite educational value, apart from its purely military aspects. The intensity of this conviction varies according to the individual, the institution such individual attended, and the major course of instruction he pursued. The graduates view the training as rounding out the college program, whether it be academic or technical, by emphasizing things which make for personal efficiency. They point out that the success of college men in large industrial organizations is accelerated by the practical type of training in principles of organization, cooperation, and leadership, which is given by the course.

Military training is depicted as providing the student with a coordinated and balanced course in human relations, which combines a practical period of apprenticeship with several years of theory, demonstration, and application. The outdoors is pictured as the laboratory for the disciplinary and applicatory training; the classroom for the study and solution of military problems. A considerable number point out that the tactical decisions involved in these problems call for analytical treatment, skill in judgment, and accuracy in decision. It is contended that such training makes for a disciplined mind, has a practical application to the daily tasks of life, and is in line with advanced educational practice.

The course in military history giving the broader aspects of American military policy appears highly regarded from an educational standpoint. According to the replies, the events of history are accurately treated and critically examined as a means of demonstrating the effect of preparation and leadership upon success.

A number advanced the thought that education should concern itself with the physical, as well as with the intellectual, and stressed the fact that military training affords physical development to the mass rather than intensive exercise to the few. The summer camp period was stated as being especially efficacious in accomplishing this physical improvement. Proper posture, outdoor recreation, systematic exercise, a knowledge of sanitation and hygiene are attributes of military training believed to be of educational value.

2. *Did the R. O. T. C. contribute anything important or unique to your education?*—Among the opinions of the 94.9 per cent who gave an affirmative answer to this question are noted the following: Military training developed confidence, coordination of mind and muscle, and contributed practical training in leadership. The disciplinary exercises taught courtesy, respect for authority, and the value of individual effort to mass accomplishment. The training contributed to an interest in national affairs and to a conviction that there are duties and obligations of citizens in time of peace. It gave an appreciation of the importance of health, neat appearance, and erect carriage to individual progress. It contributed an ability to speak clearly and coherently before a group of men.

Among the opinions of the 5.1 per cent who gave a negative reply to the question we find the following observations: The R. O. T. C. course contributes nothing to those not interested in the training. Its value is to the Nation and not to the individual. The training is unique but not important, and takes valuable time that might be better devoted to one's educational objective.

3. *How did the quality of the R. O. T. C. course with respect to content and organization, compare with other courses given at your institution?* [3]—The replies representing 36 institutions, rate the quality of the military course "Average," with respect to content and organization, compared with courses given by the other departments. Of the 18 remaining institutions, the course at 2 is rated "Above average;" the course at 12 is rated "Average" to "Above average," and the course at the remaining 4 is rated "Average" to "Below average."

Comparison of R. O. T. C. curriculum with courses of other departments

Number of institutions	Percentage of replies		
	Below average	Average	Above average
1	2	3	4
36	10	71	19
2	1	51	48
12	5	60	35
4	35	59	6

The graduates of 18 institutions registered more "Below average" ratings than "Above average," while the contrary was true of the remaining 36. In two instances no "Below average" ratings were cast while the returns from one institution showed but one "Above average" rating.

[3] As a check on the evaluations made respecting this question, the replies of two groups of graduates—those belonging to the 1923 to 1926 classes, inclusive, and those belonging to the 1927 to 1930 classes, inclusive, are contrasted for 18 institutions as shown in the appendix. Attention is called to the relatively small difference of opinion upon this question between these two groups.

The advanced R. O. T. C. course by itself is rated "Average" to "Above average"; the basic course between "Average" and "Below average"—more generally the latter. The Army instructors are rated "Above average" in personality and beneficial influence upon the students, but only "Average" in pedagogical ability.

The preponderance of replies from graduates of the technical schools tends to rate the comparative quality of the R. O. T. C. course lower than do graduates of the academic institutions. The tendency toward a lower rating is also noticeable in the returns from graduates of the medical units. These two groups of graduates attribute the lower rating to the more elementary character of the basic course.

The 2-year elementary or basic course receives general criticism that its disciplinary standards are not sufficiently strict, and that its quality suffers as a consequence. The point illustrates a limitation of military training courses in civilian institutions as compared to those in institutions which are essentially military colleges where students live in company barracks and operate under a 24-hour military schedule. In the nonmilitary colleges, students are under the control of the military department three hours per week in the first and second years and five hours per week in the third and fourth years.

Graduates of some institutions stated that the comparative standing of the R. O. T. C. course was injured by the ease with which passing grades were obtained, and that it was rare for a student to run into scholastic or disciplinary difficulties solely on account of military science. Although reports from several other institutions presented an opposite situation, the preponderance of replies indicates that the scholastic ease with which students pass through the R. O. T. C. is a retarding influence upon its academic rating. It is not conducive to the prestige to which graduates believe the R. O. T. C. is entitled for it to be known as a "snap course."

The consensus of opinion of those who dealt with the relationship of the staff of the military department to that of the academic faculty was that the frequent rotation of professors of military science and tactics, who have shown exceptional talent for this type of detail, is a policy not advantageous to the R. O. T. C. from the standpoint of institutional recognition.

4. *From your own experience was the time you spent on the training justified by the results obtained?*—From the affirmative responses which represent a large majority, we find the following viewpoints: Military training taught both in theory and practice the principles of cooperation, organization, and the art of command. It developed self-control, dependability, and orderly habits. The democracy of the training made for solidarity in the college body and resulted in

friendships not otherwise possible. The financial aid [4] was a material help in meeting college expenses. The course provided a much needed variety to the academic subjects. It provided more practical knowledge than any other course.

From the 5.1 per cent negative responses received, we note the following: Military training intruded itself into student schedules already burdened with requirements. The basic R. O. T. C. course was not applicable for credit toward a degree, nor was it made difficult enough to justify serious attention. The work of the basic course was repetitious, sketchy, and dull, and of little value to the majority upon whom it was forced. It was a waste of time.

5. *In your opinion, did military training aid or make easier the development in your own life of one or more of the following qualities or characteristics: Leadership, Initiative, Orderliness, Disciplinary value?*—The replies show that four-fifths of the respondents credited their military training with favorably affecting their ability to supervise and to cooperate with others. Approximately three-fifths credited its disciplinary influence as a factor in their development by enabling them more readily to adjust themselves as employees, while a slightly smaller number indicated that the training aided in initiative and orderliness. Additional qualities checked were confidence, health, decision, and patriotism.

In accompanying statements, the general opinion expressed was that training in the art of command breeds confidence and initiative and gives to a young man in the first trying years following graduation an advantage over the nonmilitary man.

6. *In what way, if any, has the military education you have received been of economic value to you since graduation?*—According to the evidence, such economic benefits as may result from military training are largely of an intangible kind. The majority of the replies stated that the training is an effective force making for character, physical fitness, and the ability to get things accomplished, and that the possession of such qualities is an aid to individual progress. A goodly number rated the R. O. T. C. as the course that had proven the most valuable to them in every-day life. A handful stated that their military education had proven an economic detriment.

Forty-nine and three-tenths per cent indicated that the training had improved them physically; many asserted that a proper posture was an economic asset.

Only 12.4 per cent of those answering found their R. O. T. C. work a recognizable factor in the obtaining of first employment. This

[4] Only advanced course students receive subsistence and allowances totaling $299.30, over a 2-year period. The amount includes subsistence at summer camp ($29.40); pay at summer camp, 42 days at 70 cents ($29.40); travel to and from summer camp ($27); uniform renovation at camp ($4); uniform for 2 years ($40); subsistence, at 30 cents a day, 18¾ months ($169.50).

group, particularly teachers, engineers, and those coming in supervisory contact with labor or students, found military training of definite and tangible assistance in holding their positions and in qualifying for promotion, attributing this help to experiences gained in handling men in exercises requiring coordination and direction while acting as cadet and noncommissioned officers.

It was pointed out that in many communities, and with a number of large employers, a commission in the Reserve Corps is recognized as indicative of ability, and considered as having predictive value of leadership qualities. It was felt that probably the most tangible, economic value of the training to a R. O. T. C. graduate is that wherever he goes, he finds open to him the opportunity of extending his acquaintance among the influential men of the community who are interested in military problems. That this opportunity is an asset and of economic value was stressed.

7. *In your opinion does the R. O. T. C. course of instruction tend to produce a militaristic attitude inimical to world peace?*—Ninety-three and six-tenths per cent of graduates replied to this question negatively and stated very definitely that actual education in the destructiveness of war is conducive to a sane patriotism and an enlightened attitude toward peace. They asserted that a working familiarity with modern military weapons acted as a sobering offset to any romantic conception of warfare. They pointed out that the R. O. T. C. is a training and not a state of mind. It was their view that the military instructors on the whole had shown the repulsive side of warfare and had presented their material from the standpoint of its emergency application rather than from the standpoint of assuming the inevitability of war. This group asserted that the extent of its militaristic thought, as influenced by military training, was a belief in military preparedness as a security measure.

The 6.4% who replied affirmatively to the question, indicated that students assume that they are being trained for the next war and that the very expectation creates a positive belief in the inevitability of war. This group believed also that such training keeps alive a militaristic spirit at the moment when the United States is advancing the Kellogg and other pacts for judicial settlement of all international disputes. It would be far better, some thought, to teach youth to think in terms of world-wide economic and political development rather than in patriotic terms which view our neighbors with alarm.

8 (a) and (b). *Judging by your own experience, do you favor the R. O. T. C. as a required subject for the first two years of college or would you make the entire course optional?*—Eighty-one and two-tenths per cent of 9,554 replies favored two years of required training. This majority argued that disciplinary training is now neglected in the

home and that the R. O. T. C. exerts a stablilizing effect upon youth at a time when it is most productive of good. While granting that a number of students disliked the ideas of drilling or subjecting themselves to disciplinary restraint, the majority asserted that such students could advance no serious reasons against it. They felt that those who most needed the training physically would be the very ones not to take it if the course were made entirely optional. Many stated that while they had opposed required training as undergraduates, they now support it as alumni for the reason that its disciplinary and educational benefits were not realized until after graduation. The point was often raised that those who received their education partly at Government expense owe to the Government an obligation to be reasonably familiar with military tactics to the end that their services may be of prompt use to the country in time of stress.

The minority, who favored an entirely optional course, stated that a stronger R. O. T. C. would result if the enrollment were limited to those genuinely interested. It was said that required military training blinds a student to the inherent good contained in the training, and creates a negative attitude that adversely affects the morale and progress of those who are interested. It was argued that the government receives little benefit from the considerable effort and expense spent upon indifferent or unwilling trainees. This opinion asserted that it was against the modern spirit in education to force courses upon students that were unrelated to their educational objectives.

For the sake of a clearer understanding of the replies to this question, it may be stated that the matter of whether freshmen and sophomores shall or shall not be required to undergo disciplinary military training 3 hours per week during the academic sessions has been widely discussed, and has become a problem in several institutions. It should also be noted that while numerically the alumni by a ratio of 4 to 1, favor military training as a curriculum requirement, as groups they support the "status quo" basis at their own institutions. The only exceptions comprise the replies received from the alumni groups representing DePauw University, University of Cincinnati, University of Pennsylvania, and Georgetown University—all optional—the majority of whose R. O. T. C. graduates favor required training.[5] Although the subject of optional training is legitimately debatable, it is an institutional and not a general problem. Much of the excited discussion on both sides according to the replies, originates off the college campus, and that which permeates its confines is said to be instigated largely by outside sources. Although the land-grant colleges, with the exception of the University of Wisconsin, continue the compulsory requirement, they individually have very different views as to those upon whom it shall be made compulsory. Exemptions

[5] See appendix.

vary as high as 30 per cent, and average about 20 per cent,[6] and apply principally to aliens, the physically unfit, and to athletes.

8 (c). *Judging by your own experience, would you abolish the R. O. T. C. from collegiate institutions?*—The replies show that 98.5 per cent of those replying to this questionnaire view military and academic education as complementary, and are emphatically in favor of the continuance of the R. O. T. C. in educational institutions. In their opinion the abolishment of this activity would be a decided step backward.

The graduates do not view student dissatisfaction with the R. O. T. C. seriously, and observe that unfavorable attitudes frequently change to support as the purpose of the training becomes more clearly revealed. They believe that attacks upon the training are largely due to unfamiliarity with its objectives and are too often based upon superficial observation of the campus drill rather than upon classroom procedure. A considerable number stated that were there no military objectives they would still favor the inclusion of the R. O. T. C. or some similar activity in the college curriculum as a training in citizenship and as a medium for character and physical development.

One and five-tenths per cent favored the abolition of the R. O. T. C. course on these grounds: (1) That it would advance the course of world peace; (2) the expense does not justify the results obtained; (3) military training does not rightfully belong in an educational curriculum; (4) there would be sufficient time to give intensive military training after the emergency has arisen.

SUMMARY

1. The volume of opinions drawn from more than 10,000 college graduates who completed the R. O. T. C. course in military science and tactics gives full recognition to the educational values derived from the course. This is apparent from the standpoints of both general education and discipline and educational subject matter. The course is recognized for its utility in developing right habits of mind and body and qualities of character that are fully as useful in everyday experience as they are when applied to military objectives.

2. The R. O. T. C. is especially recommended by graduates because it has brought to them a more definite and serious recognition of a number of the more important duties and responsibilities of a democratic citizenship.

3. Graduates of the R. O. T. C. have come to feel that some college authorities and faculties have not given sufficient recognition to the R. O. T. C. as an educational instrument, largely through a

[6] Every Man a Brick. M. M. Chambers. Public Schools Publishing Co., Bloomington, Ill., 1927.

failure to perceive many of the educational values that have been developed through its agency.

4. Although graduates recognize on the whole that military education is equal in quality to that which is academic or professional, they feel that the R. O. T. C. course could be strengthened by better pedagogical training on the part of the teachers of military science, and by their placing greater stress upon the study of principles rather than upon military technique.

5. The graduates would strongly oppose the abolition of military training from institutions of collegiate grade, and are of the opinion that the contribution made by the R. O. T. C. to a young man's general education is sufficient in value to warrant the continuance of the course as a curriculum requirement.

6. Ninety-three and six-tenths per cent of the 9,636 replies attest that R. O. T. C. training does not create a militaristic attitude in the minds of those who have experienced it, but that it does furnish graduates with a sense of individual responsibility toward national welfare and security.

APPENDIX A

Evaluation of the Quality of the R. O. T. C. Curriculum by Class Groupings, Based on Question 3. A Comparison Showing Variations in Opinions Between Graduates of Separate Periods

The following tables present the percentage rating given by the composite replies of graduates of the 1923 to 1926 classes, inclusive, contrasted with those of the 1927 to 1930 classes, inclusive, upon the quality of the R. O. T. C. course with respect to content and organization, as compared with other courses given at their respective institutions. For the purpose of comparison the returns from the first 18 institutions covered by this study are used.[1]

Institution	Percentage					
	Below average		Average		Above average	
	1923 to 1926, inclusive	1927 to 1930, inclusive	1923 to 1926, inclusive	1927 to 1930, inclusive	1923 to 1926, inclusive	1927 to 1930, inclusive
1	2	3	4	5	6	7
Alabama Polytechnic Institute	0	3.1	68.6	65.9	31.4	31.0
University of Arizona	9.2	2.2	77.5	70.5	13.3	27.3
University of California (Berkeley)	6.4	6.0	53.8	66.2	39.8	27.8
Carnegie Institute of Technology	37.5	18.2	60.5	74.5	2.0	7.3
University of Cincinnati	15.1	17.0	83.3	67.0	1.6	16.0
Colorado Agricultural College	11.1	4.0	52.8	55.2	36.1	40.8
Cornell University	19.8	26.3	63.6	64.2	16.6	9.5
Davidson College	12.0	1.2	72.0	74.1	16.0	24.7
University of Delaware	18.5	14.9	74.0	72.3	7.5	12.8
DePauw University	5.0	1.4	80.0	72.2	15.0	26.4
Drexel Institute	7.7	10.3	92.3	74.9	0	13.8
University of Florida	14.6	14.9	68.7	75.9	16.7	9.2
Georgia School of Technology	10.3	21.1	83.6	71.4	6.1	7.5
University of Georgia	7.1	10.2	71.5	75.5	21.4	14.3
Harvard University	26.8	27.4	66.2	61.6	7.0	11.0
University of Idaho	8.7	5.2	60.9	57.9	30.4	36.9
University of Illinois	10.0	10.6	74.9	67.6	15.1	21.8
University of Iowa	10.7	8.4	69.9	69.5	19.4	22.1

[1] Georgetown University is omitted for reason that comparative figures are not available.

APPENDIX B

Attitudes of Three Special Groups of Institutions Respecting Required versus Optional Training for Freshmen and Sophomores

The subject of required versus optional training for freshmen and sophomores is illuminated by the following tables:

ATTITUDE OF R. O. T. C. GRADUATES OF 12 OPTIONAL INSTITUTIONS

Institution	Do you favor required training for 2 years?	
	Yes	No
1	2	3
Carnegie Institute of Technology	45	55
University of Cincinnati	139	32
DePauw University	97	14
Georgetown University	70	34
Harvard University	33	144
Johns Hopkins University	46	72
Lafayette College	28	32
College of the City of New York	18	13
University of Pennsylvania	70	46
University of Utah	25	65
Vanderbilt University	36	25
Yale University	59	168
Total	666	700

ATTITUDE OF R. O. T. C. GRADUATES OF 12 LAND-GRANT COLLEGES

Alabama Polytechnic Institute	225	15
University of Delaware	94	21
University of Georgia	122	20
University of Illinois	486	63
University of Kentucky	89	8
Massachusetts Institute of Technology	409	111
University of Missouri	200	28
University of Florida	130	8
Ohio State University	284	40
Pennsylvania State College	153	35
Purdue University	252	13
University of Nebraska	186	18
Total	2,630	380

GRADUATES OF THE UNIVERSITY OF WASHINGTON

Attitude of R. O. T. C. graduates	76	17
Attitude of those who took only basic course (as a requirement)	75	59

APPENDIX C

R. O. T. C. Enrollment

At close of school year 1931

Enrollment in advanced course	13,094
Enrollment in basic course	62,692
Total senior division	75,786
Enrollment in junior division (of lower than college grade)	41,637
Total for all R. O. T. C	117,423

Number of schools and colleges operated under sec. 55c, national defense act	57
Number receiving military training	13, 666

Regular Army personnel detailed on R. O. T. C. duty as of June 30, 1931

Active officers at 9 corps area headquarters	9
Active officers at educational institutions	679
Retired officers at educational institutions	112
Active warrant officers at institutions	18
Active noncommissioned officers at institutions	492
Retired noncommissioned officers at institutions	24
Active enlisted men at institutions	419

Enrollment by class of institutions, close of school year 1930–31

Key	Type of institution	Number of institutions	Number of units	Enrollment
1	2	3	4	5
C	College and universities not essentially military	115	196	68, 722
MC	Colleges and universities military	8	17	5, 865
M	Essentially military schools	46	49	9, 309
SM	High schools	60	59	32, 586
	All others	4	4	941
	Total	233	325	117, 423

Enrollment by branch, close of school year 1930–31

Branch	Number of senior and junior units	Basic course including junior R.O.T.C. enrollment	Advanced course	Total for all R.O.T.C. units	Per cent of total
1	2	3	4	5	6
Infantry	[1] 192	76, 105	5, 438	81, 543	69.4
Cavalry	11	2, 780	711	3, 491	3.0
Field Artillery	20	9, 521	2, 100	11, 621	9.9
Coast Artillery	20	5, 803	1, 272	7, 075	6.0
Air Corps	4	573	137	650	.6
Engineer	22	4, 335	1, 107	5, 442	4.6
Signal Corps	10	1, 449	383	1, 832	1.6
Total arms	279	100, 506	11, 148	111, 654	95.1
Ordnance	9	707	347	1, 054	.9
Chemical Warfare	1	108	34	142	.1
Medical	24	2, 172	1, 068	3, 240	2.8
Dental	8	554	387	941	.8
Veterinary	4	282	110	392	.3
Total services	46	3, 823	1, 946	5, 769	4.9
Grand total	325	104, 329	13, 094	117, 423	100.0

[1] Includes 106 junior units.